CLAIMS

1. A method of generating antibodies useful for assaying a sample for fuel oxygenates comprising (i) conjugating a hapten having a $CH_3O-C(CH_3)_2-CH_2-$moiety to a carrier protein to produce a conjugate; (ii) injecting the conjugate into an animal; (iii) harvesting antibody-synthesising cells from the animal; (iv) fusing the antibody-synthesising cells with myeloma cells to form hybridoma cells; (v) cultivating the hybridoma cells; (vi) screening the cultivated cells to find desired cells producing monoclonal antibodies capable of binding methyl *tert*-butyl ether ("MTBE"); and (vii) cultivating said desired cells and harvesting said monoclonal antibodies.

2. A method according to claim 1 wherein said hapten is:

$CH_3O-C(CH_3)_2-CH_2-X-B$

where X is a spacer and B is a group capable of binding to a carrier protein.

3. A method according to claim 2 wherein the spacer X comprises a hydrocarbon chain of 2-8 carbon atoms.

4. A method according to claim 3 wherein the spacer X is:

$-CH_2.CH_2.CH(CH_3).CH_2-$

5. A method according to claim 2, 3 or 4 wherein the binding group B is -CHO.

6. A method according to any preceding claim wherein the carrier protein is selected from bovine serum albumin, human serum albumin, rabbit thyroglobin and keyhole limpet haemacyanin.

7. A method according to any preceding claim wherein the monoclonal antibodies exhibit binding to methyl *tert*-butyl ether, ethyl *tert*-butyl ether, methyl *tert*-amyl ether and *tert*-butyl alcohol.

8. A monoclonal antibody capable of binding methyl *tert*-butyl ether as produced by the method of any preceding claim.

9. A method of assaying a sample for fuel oxygenates and their breakdown products comprising generating antibodies by a method according to any of

claims 1-8 and carrying out an immunoassay using said antibodies.

5